

REMARKS

Claims 1-6 were examined in the Office Action mailed August 9, 2007.

Claims 1-6 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,881,133 ("Saitoh et al.") or U.S. Patent No. 6,932,685 ("Saitoh"), in view of Japanese patent document JP 01-146660 ("Katsumi").

The Present Invention: The Applicants have amended claim 1 to more specifically recite the arrangements of the claimed dressing tool and its use to dress the double-disk surface grinding machine's grinding wheels. Conforming amendments and amendments to correct typographic errors identified by the Applicants have also been made.

As amended, claim 1 now recites a dressing method for a vertical duplex-head surface grinding machine in which, *inter alia*, a dressing tool is supported on a work holding jig between the machine's grinding stones, the dressing tool

having a dressing wheel with parallel upper and lower grinding surfaces, a cylindrical member with a flange portion arranged to concentrically receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane, and an abutment surface perpendicular to the outer surface of the fitting portion to abut against the second reference plane, the dressing tool being mounted in alignment on the work holding part through fitting the fitting portion in the first reference plane and abutting the abutment surface against the second reference plane.

Detailed illustrations of an example embodiment of the claimed dressing tool are shown in Figs. 4-6 (dressing tool comprising dressing wheel 60, cylindrical member 62, annular retaining plate 65, flange portion 62b, fitting portion outer

diameter D_1 corresponding to first reference surface circumferential surface inner diameter 31, abutment surface 62d, to abut second reference surface 32). The invention recited in claim 1 permits the dressing tool to be positioned and fixed at a precise location on the work holding part, the same location as a work part when in the grinding position. Further, because the dressing tool is assembled from the dressing wheel, cylindrical member and annular retaining disc, the cylindrical member and annular retaining disc may be reused when the dressing wheel is worn to the point of replacement.

The Cited References: The Saitoh references are cited as teaching the elements of a vertical-type double disk grinding machine, and Katsumi is cited as teaching the use of a dressing tool which is “formed with the same configuration as the work.” August 9, 2007 Office Action at 3.

Katsumi discloses a machine used to grind parallel faces on opposing sides of the main bearing end of a connecting rod. Katsumi Figs. 1-3. The disclosed “dressing tool” appears to be nothing more than a connecting rod to which a layer of abrasive grits have been affixed by electro-deposition. In contrast, the dressing tool recited in claim 1 is a multi-piece built-up device which is (i) not formed as a corresponding work piece (the typical work part being a one-piece brake disk with integral hub portion shaped differently than the claimed cylindrical member), and (ii) formed to permit reuse of the relatively expensive highly machined cylindrical member and annular retaining disk when the expendable dressing wheel is replaced.

Because Katsumi’s coated connecting rod fails to disclose or suggest claim

1's dressing tool "having a dressing wheel with parallel upper and lower grinding surfaces, a cylindrical member with a flange portion arranged to concentrically receive the dressing wheel, and an annular retaining disc arranged to cooperate with the cylindrical member to fix the dressing wheel between the cylindrical member and the retaining disc, the cylindrical member being provided with a fitting portion having an outer diameter corresponding to an inner diameter of the circumferential surface of the first reference plane so as to fit in the first reference plane, and an abutment surface perpendicular to the outer surface of the fitting portion to abut against the second reference plane, the dressing tool being mounted in alignment on the work holding part through fitting the fitting portion in the first reference plane and abutting the abutment surface against the second reference plane," and the Saitoh references are silent on dressing tool arrangement (and thus cannot cure the deficiencies of Katsumi), the pending claims are patentable under § 103(a) over any combination of the Saitoh references and Katsumi. Accordingly, reconsideration and withdrawal of the pending § 103(a) rejection based on these references is respectfully requested.

CONCLUSION

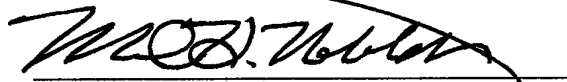
The Applicants respectfully submit that claims 1-6 are in condition for allowance. Early and favorable consideration, and issuance of a Notice of Allowance for these claims is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038658.57498US).

November 2, 2007

Respectfully submitted,



Jeffrey D. Sanok
Registration No. 32,169
Mark H. Neblett
Registration No. 42,028

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
JDS:MHN:gtm
4470552_1